

III. REMARKS

Claims 1-20 are pending in this application. By this amendment, claims 1-3, 13, 17, 19 and 20 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claim 1 is rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Claims 1-20 are rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. Claims 1-6, 9, 10, 17, 19 and 20 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Coppersmith *et al.* (U.S. Patent No. 5,454,039), hereafter "Coppersmith." Claims 7, 8, 11-16 and 18 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Coppersmith in view of Smith (U.S. Patent No. 3,796,830), hereafter "Smith."

A. REJECTION OF CLAIM 1 UNDER 35 U.S.C. §112

The Office has asserted that claim 1 is indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claim 1 to recite "...after the combination operation is performed a predetermined number of times." Applicants assert that this amendment further clarifies the invention. Accordingly, Applicants request that the rejection be withdrawn.

B. REJECTION OF CLAIMS 1-9 UNDER 35 U.S.C. §101

The Office has rejected claims 1-20 for allegedly being directed to non-statutory subject matter. Applicants assert that the PTO Board of Appeals ruling in *In re Lundgren* abolished the test that the Office uses as justification for its rejection under 35 U.S.C. §101. Furthermore, the current USPTO Interim Guidelines on Patentable Subject matter expressly state, "The following tests are not to be applied by examiners in determining whether the claimed invention is patent eligible subject matter: (A) "not in the technological arts" test (B) Freeman-Walter-Abele test (C) mental step or human step tests (D) the machine implemented test (E) the per se data transformation test." Accordingly, Applicants request that the rejection be withdrawn.

C. REJECTION OF CLAIMS 1-6, 9, 10, 17, 19 and 20 UNDER 35 U.S.C. §102(b)

With regard to the 35 U.S.C. §102(b) rejection over *Coppersmith*, Applicants assert that the portions of *Coppersmith* cited by the Office do not teach each and every feature of the claimed invention. For example, with respect to independent claims 1, 17, 19 and 20, Applicants submit that *Coppersmith* fails to teach each of the mask tables having one or more masks, one or more of the masks in the mask tables being replaced by one or more replacement masks after the combination operation is performed a predetermined number of times, the replacement masks not being linear combinations of prior masks. The Office equates the mask tables of the claimed invention with the set of tables T, R and S generated by *Coppersmith*. Office Action, page 4, citing col. 3, lines 56-59. The Office then equates the replacing of one or more masks in the mask table of the claimed invention with a passage of *Coppersmith*, which describes a set of mixing functions and a set of corresponding masking functions that used in its iterations.

However, this passage of Coppersmith does not teach that the mixing functions and masking functions are in the set of tables T, R and S. Nowhere in the passage cited by the Office or elsewhere does Coppersmith teach replacing one or more masks in the set of tables T, R and S by one or more replacement masks. In contrast, the present invention includes "...each of the mask tables having one or more masks...one or more of the masks in the mask tables being replaced by one or more replacement masks after the combination operation is performed a predetermined number of times, the replacement masks not being linear combinations of prior masks." Claim 1.

As such, the masks that are being replaced in the claimed invention are not distinct from the mask tables as are the set of mixing functions and set of masking functions from the set of tables T, R and S of Coppersmith, but rather each of the mask tables has one or more masks that are in the mask tables. These masks of the claimed invention are replaced by one or more replacement masks after the combination operation is performed a predetermined number of times. Thus, the masks in the mask tables of the claimed invention are not taught by the set of mixing functions and set of masking functions in Coppersmith. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

With further respect to claims 2 and 3, Applicants respectfully submit that Coppersmith also fails to teach that the predetermined number of times is greater than 1 (Claim 2) or that the predetermined number of times is 16 (Claim 3). Instead, Coppersmith teaches that "...when the 4-tuples from table S are exhausted, the function returns to FIG. 2 and re-runs the Initialize process for the next set of values from the R table." Col. 7, lines 24-28. Interpreting Coppersmith merely for the purpose of this response, the values in the S table of Coppersmith are used only once, and, once these values are exhausted, values in the R table are used. Thus,

Coppersmith does not teach multiple uses of the values in the tables. The claimed invention, in contrast, includes "...wherein the predetermined number of times is greater than 1." Claim 2. As such, in contrast to Coppersmith in which the values in each table are used only once, in the claimed invention the one or more masks in the mask tables of the claimed invention may be replaced after the combination operation is performed more than one time, e.g., 16 times. For the above reasons, Coppersmith does not teach that the predetermined number of times is greater than 1 as found in the claimed invention. Accordingly, Applicants request that the rejection be withdrawn.

With regard to the Office's other arguments regarding dependent claims, Applicants herein incorporate the arguments presented above with respect to independent claims listed above. In addition, Applicants submit that all dependant claims are allowable based on their own distinct features. However, for brevity, Applicants will forego addressing each of these rejections individually, but reserve the right to do so should it become necessary. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

D. REJECTION OF CLAIMS 7, 8, 11-16 AND 18 UNDER 35 U.S.C. §103(a)

With respect to dependent claims, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. Furthermore, Applicants submit that all dependant claims are allowable based on their own distinct features. Since the cited art does not teach each and every feature of the claimed invention, Applicants respectfully request withdrawal of this rejection.

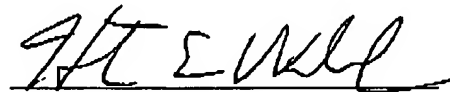
IV. CONCLUSION

In addition to the above arguments, Applicants submit that each of the pending claims is patentable for one or more additional unique features. To this extent, Applicants do not acquiesce to the Office's interpretation of the claimed subject matter or the references used in rejecting the claimed subject matter. Additionally, Applicants do not acquiesce to the Office's combinations and modifications of the various references or the motives cited for such combinations and modifications. These features and the appropriateness of the Office's combinations and modifications have not been separately addressed herein for brevity. However, Applicants reserve the right to present such arguments in a later response should one be necessary.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

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